

AMENDMENTS TO THE CLAIMS

Claims 1-25 (Canceled).

Claim 26 (Currently amended): A method of detecting in a sample the presence or absence of neoplastic cells having an increased copy number of nucleic acid sequences at chromosome region 20q13.2, the method comprising:

contacting a nucleic acid sample from a human patient with a probe which specifically hybridizes to a target polynucleotide sequence under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes, the target polynucleotide sequence comprising a sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, and SEQ ID NO:13 wherein the probe is contacted with the sample under conditions in which the probe hybridizes selectively with the target polynucleotide sequence to form a stable hybridization complex; and

detecting the formation of a hybridization complex to determine ~~the relative~~ a copy number of a nucleic acid in chromosomal region 20q13.2, thereby identifying the presence or absence of neoplastic cells having an increased copy number of nucleic acid sequences at chromosomal region 20q13.2.

Claim 27 (Original): The method of claim 26, wherein the nucleic acid sample is from a patient with breast cancer.

Claim 28 (Currently amended): The method of claim 26, wherein the nucleic acid sample is a metaphase spread or ~~a~~ an interphase nucleus.

Claim 29 (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:1.

Claim 30 (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:2.

Claim 31 (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:3.

Claim 32 (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:4.

Claim 33 (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:5.

Claim 34 (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:6.

Claim 35 (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:7.

Claim 36 (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:8.

Claim 37 (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:9.

Claim 38 (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:10.

Claim 39 (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:12.

Claim 40 (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:45.

Claims 41-47 (Canceled).

Claim 48 (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:1 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

Claim 49 (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:2 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

Claim 50 (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:3 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

Claim 51 (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:4 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

Claim 52 (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:5 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

Claim 53 (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:6 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

Claim 54 (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:7 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

Claim 55 (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:8 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

Claim 56 (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:9 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

Claim 57 (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:10 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

Claim 58 (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:11 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

Claim 59 (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:12 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

Claim 60 (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:45 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

Claim 61 (Previously presented): The method of claim 26, wherein the probe is labeled.

Claim 62 (Previously presented): The method of claim 61, wherein the label is a fluorescent label.

Claim 63 (Previously presented): The method of claim 26, wherein the nucleic acid sample is a chromosome